

## Title (en)

REFLECTIVE-LAYER-EQUIPPED SUBSTRATE FOR EUV LITHOGRAPHY, REFLECTIVE MASK BLANK FOR EUV LITHOGRAPHY, REFLECTIVE MASK FOR EUV LITHOGRAPHY, AND PROCESS FOR PRODUCING REFLECTIVE-LAYER-EQUIPPED SUBSTRATE

## Title (de)

MIT EINER REFLEKTIERENDEN SCHICHT AUSGESTATTETES SUBSTRAT FÜR DIE EUV-LITHOGRAPHIE, REFLEKTIERENDER MASKENROHLING FÜR DIE EUV-LITHOGRAPHIE, REFLEKTIERENDE MASKE FÜR DIE EUV-LITHOGRAPHIE UND VERFAHREN ZUR HERSTELLUNG DES MIT EINER REFLEKTIERENDEN SCHICHT AUSGESTATTETEN SUBSTRATS

## Title (fr)

SUBSTRAT ÉQUIPÉ D'UNE COUCHE RÉFLÉCHISSANTE POUR LITHOGRAPHIE PAR ULTRAVIOLETS EXTRÊMES, ÉBAUCHE DE MASQUE RÉFLÉCHISSANT POUR LITHOGRAPHIE PAR ULTRAVIOLETS EXTRÊMES, MASQUE RÉFLÉCHISSANT POUR LITHOGRAPHIE PAR ULTRAVIOLETS EXTRÊMES ET PROCESSUS DE PRODUCTION DE SUBSTRAT ÉQUIPÉ D'UNE COUCHE RÉFLÉCHISSANTE

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## Application

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## Abstract (en)

[origin: WO2011071123A1] Provided are an EUV mask blank in which a reduction in reflectivity due to the oxidation of the Ru protective layer can be inhibited, a reflective-layer-equipped substrate used for producing the EUV mask blank, and a process for producing the reflective-layer-equipped substrate. The disclosed reflective-layer-equipped substrate for EUV lithography has a reflective layer for reflecting EUV radiation and a protective layer for protecting the reflective layer which are formed on a substrate in the aforementioned order, and is characterized in that: the reflective layer is a Mo/Si multilayer reflective film; the protective layer is a Ru layer or a Ru compound layer; and an intermediate layer containing 0.5 to 25at.% of nitrogen and 75 to 99.5at.% of Si is formed between the reflective layer and the protective layer.

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- [A] US 2004121134 A1 20040624 - BIJKERK FREDERIK [NL], et al
- See references of WO 2011071123A1

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